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EXAMINER
TRAN, TONGOC

ART UNIT	PAPER NUMBER
2134	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/657,754

Applicant(s)

KIM, HEE JEAN

Examiner

Tongoc Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to Applicant's Application serial no. 10/657,754 filed on September 9, 2003. Claims 1-82 are pending for examination.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Fig. 3, item 305 is not described in the Specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

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3. Exemplary Claims 55, 59 and 65 are objected to because of the following informalities:

Claim 55 recites the limitation "...the multimedia" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 59 recites the limitation "...the multimedia" in line 15. There is insufficient antecedent basis for this limitation in the claim.

Claims 65 and 66 recite the limitation "...the multimedia" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Not all claims have been check for similar minor errors. Applicant's cooperation is requested in correcting any minor errors that may raise an issue for lack of antecedent basis such as those listed above.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 24 is rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility. The claim recites the limitation of "registering with a web content provider; requesting broadcast content from the web content provider; requesting a software voucher from a media operator; at a key bank, receiving and validating the request, then generating the

activation code and a unique software identifier; and *sending the activation code and the unique identifier to the end- user and storing the activation code corresponding to the previous voucher*". According to the Interim Guideline for Examination of Patent Application for Patent Subject Matter Eligibility, in order for the claimed invention to produce a practical application, the final result achieved by the claimed invention must be "useful, tangible and concrete"; "statements in the specification describing a practical application may not be sufficient to satisfy the requirements for section 101 with respect to the claimed invention. Likewise, a claim that can be read so broadly as to include statutory and nonstatutory subject matter must be amended to limit the claim to a practical application". In this case, for example, the statements in the specification where, "the unique software identifier is configured to decrypt the multimedia in real time" would have produced a "useful, tangible and concrete" but mere sending the activation code and the unique identifier to the end-user would not because the final result of sending the code and unique identifier to the end-user and storing the code corresponding to the previous voucher does not produce a useful final result.

Claim 24 also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 recites "at a key bank, receiving and validating the request..." in lines 5 and 6 follows by the steps of requesting broadcast content from the web content provider and requesting software voucher from a media operator. It is unclear the step performed at the key bank is referring the request for the broadcast content from the content provider or the request for the software voucher from the media operator. For the purpose of examination, Examiner interprets the request as referring to the request for the software voucher as referenced on page 14 of the Specification.

Claim 24 further recites "...the previous voucher" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim 26 recites the limitation "... the rights management control center..." in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

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6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-7, 9-13, 15-22, 28, 30, 31, 33-36, 38, 40-48, 50-59, 61-68, 70, 72-75, 77, and 79-82, are rejected under 35 U.S.C. 102(e) as being anticipated by Shen-Orr et al. (U.S. Application Publication No. 2002/0114465, hereinafter Shen-Orr).

With respect to claims 1, 7, 28, 31, 38, 70 and 77, Shen-Orr discloses a method and system of receiving real-time multimedia via a network, comprising the steps of: transmitting a request for the multimedia from a client interface, wherein the request obtains a reply response containing a control message having a first encryption key (see [0070]), a unique software identifier containing an entitlement message, which has a second encryption key, the control message defining content stream information and access criteria, and the entitlement message defining the client interface entitlement rights (see [0045], [0074], [0075] [0076]); and receiving the reply, wherein the unique software identifier decrypts the multimedia in real-time, in accordance with the content stream information and access criteria, in order to render the multimedia at the client interface (see [0077]).

With respect to claims 3, 9, 18, 33, 40, 53, 64, 72 and 79, Shen-Orr further

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discloses wherein the first encryption key and the second encryption key are symmetric encryption pairs (e.g. [0071]).

With respect to claims 4, 10, 19, 34, 41, 54, 65, 73 and 80, Shen-Orr further discloses wherein the first encryption key protects the multimedia and permits the multimedia to be descrambled (see [0045]).

With respect to claims 5, 11, 20, 35, 42, 55, 66, 74 and 81, Shen-Orr further discloses wherein the second encryption key protects the entitlement rights and permits the rendering of the multimedia at the client interface (e.g. [0045] and [0071]).

With respect to claims 6, 12, 30, 36, 43, 58, 75 and 82, Shen-Orr further discloses wherein the multimedia includes audio or video (e.g. [0002]).

With respect to claims 13, 44 and 59, Shen-Orr discloses a system and method for providing real-time multimedia: a media source configured to generate an audio/video content stream; a code generator configured to generate a plurality of distinct codes, a unique software identifier, and a plurality of messages (e.g. [0005] and [0045]); a media encoder configured to convert the audio/video content stream to a particular format and to provide non-encrypted multimedia to a media encryptor; a media encryptor configured to dynamically encrypt the non-encrypted multimedia with at least one distinct code and to transmit the encrypted multimedia to a media server (e.g.

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0013]); a media server configured to store the encrypted multimedia and to provide the encrypted multimedia stream link to a web server; a web server configured to register an end-user and to provide an encrypted multimedia stream link to the end-user; and an end-user configured to receive the encrypted multimedia stream link (e.g. 0012]) and, wherein the unique software identifier is configured to decrypt the encrypted multimedia in real-time in order to render the multimedia at the end-user (e.g. [0014] and [0077]).

With respect to claims 15, 50 and 61, Shen-Orr further discloses wherein the messages include a control message and an entitlement message (e.g. [0045]).

With respect to claims 16, 51 and 62, Shen-Orr further discloses wherein the control message defines content stream information and access criteria, and the entitlement message defines the end-user entitlement rights (e.g. [0045]).

With respect to claims 17, 52 and 63, Shen-Orr further discloses wherein the plurality of distinct codes include a first key and a second key (e.g. [0045]).

With respect to claims 21, 56 and 67, Shen-Orr further discloses wherein the first key is embedded in the control message (e.g. [0045]).

With respect to claims 22, 57 and 68, Shen-Orr further discloses wherein the second key is embedded in the entitlement message (e.g. [0045]).

With respect to claim 45, Shen-Orr further discloses wherein the non-encrypted broadcast content is generated by a media source (e.g. [0015]).

With respect to claim 46, Shen-Orr further discloses wherein the plurality of distinct codes, the unique software identifier and the plurality of messages are generated by a code generator (e.g. [0045]).

With respect to claim 47, Shen-Orr further discloses wherein non-encrypted broadcast content is converted to a particular format by a media encoder (e.g. [[0002]).

With respect to claim 48, Shen-Orr further discloses wherein the broadcast content is dynamically encrypted with at least one code by a media encryptor (e.g. [0072]).

7. Claims 24, 26 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Wiser (U.S. Patent No. 6,385,596).

With respect to claim 24, Wiser discloses the method of providing broadcast content security, comprising the steps of: registering with a web content provider (e.g. col. 11, lines 26-31); requesting broadcast content from the web content provider; requesting a software voucher from a media operator (e.g. col. 4, lines 51-67); at a key bank, receiving and validating the request, then generating the activation code and a

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unique software identifier; and sending the activation code and the unique software identifier to the end-user and storing the activation code corresponding to the previous voucher (e.g. col. 5, lines 1-16).

With respect to claim 26, Wiser discloses the method according to claim 24, wherein the software voucher is digitally signed so that the rights management control center can verify whether the request originated from a valid web server (e.g. Wiser, col. 23 lines 53-58).

With respect to claim 27, Wiser discloses the method according to claim 24, wherein the broadcast content includes audio and video signals (e.g. Wiser, col. 1, lines 25-29).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2, 8, 14, 23, 29, 32, 37, 39, 49, 60, 69, 71, 76 and 78, rejected under 35 U.S.C. 103(a) as being unpatentable over Shen-Orr (U.S. Application Publication No. 2002/0114465) in view of Hamann et al. (U.S. Patent No. 6,516,357, hereinafter Hamann).

With respect to claims 2, 8, 14, 23, 29, 32, 37, 39, 49, 60, 69, 71, 76 and 78, Shen-Orr further discloses wherein the unique software identifier can be a smart card (e.g. [[0014] and [0076]) for configuring to descramble the received content but not a virtual smart card. However, Hamann discloses a virtual software smart card represent a software solution and models the functions of a physical smart card (e.g. Hamann, col. 1, lines 39-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the physical smart card taught by Shen-Orr with the virtual software smart card taught by Hamann for the benefit of providing user the convenience of downloading the software smart card using a diskette or over the Internet (Hamann, col. 1, lines 50-52).

9. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wiser et al. (U.S. Patent No. 6,385,596, hereinafter Wiser) in view of Shen-Orr (U.S. Application Publication No. 2002/0114465) and further in view of Hamann (U.S. Patent No. 6,516,357).

With respect to claim 25, Wiser discloses the method of providing broadcast content security according to claim 24. Wiser does not disclose the unique software identifier is in the form of a virtual smart card with an entitlement management message. However, Shen-Orr discloses wherein the unique software identifier can be a smart card (e.g. [[0076] for configuring to descramble the received content but not a virtual smart card. Hamann discloses a virtual software smart card represent a software solution and models the functions of a physical smart card (e.g. Hamann, col. 1, lines

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39-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the physical smart card taught by Shen-Orr with the virtual software smart card taught by Hamann for the benefit of providing user the convenience of downloading the software smart card using a diskette or over the Internet (Hamann, col. 1, lines 50-52).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Smith et al. disclose a virtual smart card system and method.
- Pinder et al. disclose a verification of the source of program information in conditional access system.
- Kubota et al. disclose data multiplexing device, program distribution system, program transmission system, pay broadcast system, program transmission method, condition access system and data reception device.
- Maillard et al. disclose a smartcard for use with receiver of encrypted broadcast signals and receiver.
- Akins III et al. disclose representing entitlements to service in a conditional access system.
- Thatcher et al. disclose apparatus and method for local encryption control of a global transport data stream.

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- Wajs discloses system for providing scrambled content and system for descrambling scrambled content.
- Mattox et al. disclose apparatus for encryption key management.
- Wajs et al. discloses method of operating a conditional access system for broadcast applications.
- Wasilewski et al. disclose method and apparatus for providing conditional access in connection-oriented interactive networks with a multiplicity of service providers.
- Akiyama discloses broadcast receiving method and apparatus and information distribution method and apparatus.
- Asay et al. discloses reliance service for electronic transaction system.
- Condelore discloses method and apparatus for securing control words.
- Fichet et al. disclose method and apparatus for broadcasting and receiving entitlement management messages.
- Tsuria discloses a digital recording protection system.
- Schwenk et al. discloses similarities and differences between pay-tv and pay streaming.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tongoc Tran whose telephone number is (571) 272-3843. The examiner can normally be reached on 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


May 2, 2007


KAMBIZ ZAND
SUPERVISORY PATENT EXAMINER